UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, Department of Justice **Antitrust Division** 325 7th Street, NW, Suite 500 Washington, DC 20530

Civil Case No.:

Plaintiff,

v.

MONSANTO COMPANY 800 North Lindbergh Boulevard St. Louis, MO 63167

and

DELTA AND PINE LAND COMPANY 1 Cotton Row Scott, MS 38772,

Defendants.

Case: 1:07-cv-00992

Assigned To : Urbina, Ricardo M. Assign. Date : 5/31/2007

Description: Antitrust

COMPLAINT

The United States of America, acting under the direction of the Attorney General of the United States, brings this civil action to enjoin the merger of defendants Monsanto Company ("Monsanto") and Delta and Pine Land Company ("DPL") and allege as follows:

- 1. In 2006, cottonseed was planted on more than 15 million acres in the United States and generated more than \$5 billion in annual revenues for United States farmers. Cotton is grown across the Southern United States from Virginia, the Carolinas, Georgia, and Florida on the East Coast to California on the West Coast.
 - 2. Farmers grow substantially all of this important crop from cottonseed that has

been enhanced through the introduction of biotechnology traits ("traited cottonseed"). Traited cottonseed results from combining cottonseed stock that has attractive growing characteristics (such as producing a high yield of cotton per acre) with performance traits foreign to cotton that are inserted through genetic engineering.

- 3. Monsanto is the largest producer and supplier of biotechnology traits sold in cottonseed in the United States, with over 96% of United States traited cottonseed containing Monsanto traits. Monsanto is also one of the largest sellers of traited cottonseed in the United States, primarily through its Stoneville Pedigreed Seed Company ("Stoneville").
- 4. DPL is the largest producer of cottonseed in the United States. DPL is the leading seller in the MidSouth (Mississippi, Arkansas, Louisiana, Missouri, and Tennessee), where DPL sells 79% of all traited cottonseed, and the Southeast (Alabama, Georgia, Florida, South Carolina, North Carolina, and Virginia), where DPL sells 87% of all traited cottonseed.
- 5. In the 1980s, Monsanto partnered with DPL to introduce cottonseed containing Monsanto traits. DPL's experienced and knowledgeable cotton breeders and large collection of high-quality germplasm (the genetic material of a cottonseed that gives the plant its characteristics) provided Monsanto with an unparalleled avenue through which to commercialize and market its traits. The combination of Monsanto traits and DPL cottonseed has been highly successful, particularly in the MidSouth and Southeast, due to the performance of DPL's cottonseed and the value of Monsanto's biotechnology traits in those regions.
- 6. Monsanto's position as the dominant supplier of traits used in cottonseed was jeopardized in the early 2000s when DPL began to partner with other biotechnology companies.

 Through these partnerships, DPL's germplasm library and breeding capabilities were available to

alternative trait developers, allowing them to work toward introducing new traits in DPL cottonseed that would compete with Monsanto's traits. DPL publicly stated its intent to replace Monsanto traits in its products and planned to launch products with non-Monsanto traits as early as the 2009 growing season, with additional products to follow.

- 7. Spurred by this competitive threat and recognizing the potential for a successful pairing of DPL's cottonseed with competing traits, Monsanto purchased Stoneville to position Monsanto to compete vigorously with DPL. Monsanto aggressively worked to develop Stoneville's germplasm and its traited cottonseed sales and also continued its efforts to develop germplasm and expand traited cottonseed sales through its Cotton States business unit.
- 8. The proposed merger will consolidate Monsanto's and DPL's traited cottonseed sales, eliminating competition between these firms in the sale of cottonseed. DPL and Monsanto together would control over 95% of sales in the important MidSouth and Southeast regions, where harvested cotton garners higher prices per bale, and where cottonseed traits are most valued by farmers. The proposed merger will also eliminate DPL as a partner independent of Monsanto for competing trait developers, substantially delaying or preventing the development and introduction of cottonseed containing non-Monsanto traits. Accordingly, Monsanto's merger with DPL would substantially lessen competition in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

I. JURISDICTION AND VENUE

9. This action is filed by the United States under Section 15 of the Clayton Act, as amended, 15 U.S.C. § 25, to prevent and restrain Defendants from violating Section 7 of the

Clayton Act, 15 U.S.C. § 18.

- 10. Monsanto and DPL are engaged in interstate commerce and in activities substantially affecting interstate commerce. The Court has jurisdiction over this action and the parties pursuant to Sections 15 and 16 of the Clayton Act, 15 U.S.C. §§ 25, 26; and 28 U.S.C. §§ 1331, 1337.
- 11. The Defendants have consented to personal jurisdiction and venue in this judicial district.

II. THE DEFENDANTS

- 12. Defendant Monsanto is a Delaware corporation, with its headquarters located in St. Louis, Missouri. Monsanto is a leading global provider of agricultural products for farmers, including seeds for cotton, soybeans, and corn; traits that help farmers control insects and weeds; and crop protection chemicals such as the herbicide Roundup, a branded version of the chemical glyphosate. Monsanto had total company revenues of more than \$7.3 billion in 2006.
- 13. Defendant DPL is a Delaware corporation, with its headquarters located in Scott, Mississippi. DPL is the largest cottonseed producer in the world. DPL's sales in the United States in 2006 exceeded \$400 million.

III. TRADE AND COMMERCE

A. Affected Commerce

Cottonseed Varieties

14. Cottonseed varieties differ in their performance, including the yield, the strength and the length of the cotton fibers, and the adaptability of the cottonseed to specific weather

conditions and soil types. Varieties that perform best in certain regions of the country, such as the drier areas of the Southwest (including West Texas, Kansas, and Oklahoma) do not typically perform well in other regions, such as the MidSouth and the Southeast. Farmers select cottonseed varieties that have the best performance characteristics for the area in which the cottonseed will be planted, with the primary focus on yield.

- 15. To be competitive, cottonseed companies must continually work on developing new and improved cottonseed varieties through their breeding programs. Cotton breeding is a costly and time-consuming process in which the cottonseed company selects lines to breed together (or "cross"), plants the cottonseed produced from that initial cross, and then selects the best plants for further crossing to create a variety with the desired characteristics. In most cases, it takes eight to ten years from the initial cross until a new cottonseed variety is ready for market.
- 16. The success of a cottonseed company's breeding program is dependent on many factors, the most important of which is the quantity and quality of available breeding materials, *i.e.* germplasm. A company with a large collection of high quality, or elite, germplasm has a competitive advantage because the company has the ability to identify the best genetic material and use it in a wide variety of possible crossing combinations, resulting in a greater likelihood of developing a successful variety.
- 17. DPL has the largest cotton germplasm collection, with by far the greatest track record of success in the important MidSouth and Southeast regions, and an extensive breeding program for cottonseed. It has eight research or breeding facilities in the United States and five located elsewhere in the world. It has more breeding capabilities than any competitor and over ninety years of germplasm development.

Traits for Cottonseed

- 18. Historically, farmers grew cotton from conventional cottonseed that contained naturally occurring characteristics. Cotton farming with conventional cottonseed involved labor intensive and costly herbicide and insecticide spraying programs that required multiple applications at very specific times in the growing season. Failure to spray or to correctly time the applications could result in substantial crop damage.
- 19. In the 1980s, Monsanto developed a trait that could be inserted into cotton plants to make plants resistant to certain insects. It also developed an herbicide-tolerant trait that would make cotton plants grown from cottonseed with the trait resistant to certain herbicides sprayed to kill weeds, allowing farmers to spray herbicides less precisely without killing the young plants.
- 20. To gain acceptance by farmers, the traits had to be delivered in cottonseed lines that performed well in the growing area where the farmer was located. In 1988, Monsanto approached DPL to develop and commercialize cottonseed with the Monsanto insect-resistant and herbicide-tolerant traits. DPL was then, and still is, the market leader in cottonseed, with what was considered the best germplasm and the most sought-after varieties.
- 21. The companies proceeded with the development and commercialization process, which involved inserting the Monsanto trait into DPL germplasm, evaluating plant lines grown from that germplasm, and breeding promising candidate plants to produce varieties with desired characteristics. In 1996, DPL began to sell the first cottonseed with Monsanto's initial insect-resistant trait (marketed under the name "Bollgard"), and, the following year, it introduced a variety with Monsanto's initial herbicide-tolerant trait (marketed under the name "Roundup Ready").

- 22. Farmers, particularly those in the MidSouth and Southeast, quickly adopted traited cottonseed because its use significantly lowered overall farming costs, increased yields, and reduced the risk of crop loss. Today, almost all cottonseed varieties planted in the United States are traited, and, in 2006, over 96% of the traited cottonseed sold in the United States contained traits developed by Monsanto.
- 23. When farmers acquire traited cottonseed, they pay a price per bag to the seed distributor, who pays the seed manufacturer for the seed, and a separate license fee (commonly referred to as the "technology fee") to the developer of the trait. Typically, the trait developer shares a portion of the technology fee with the seed manufacturer. The technology fee can constitute as much as 80% of farmers' total costs for a bag of traited cottonseed.

DPL's Trait Development with Monsanto's Competitors

- 24. Following Monsanto's and DPL's successful introduction of traited cottonseed, they agreed in 1998 that Monsanto would acquire DPL. The Antitrust Division of the United States Department of Justice investigated the proposed transaction. In late 1999, while the transaction was still under review, Monsanto decided to abandon the transaction. DPL thus remained an independent company.
- 25. Despite ensuing litigation from the companies' failed attempt to merge, DPL continued to develop and market cottonseed varieties with Monsanto's traits. DPL also commenced a strategy to replace (or "trade-out") the Monsanto traits in DPL cottonseed with traits of other companies. DPL believed that this strategy would be profitable for DPL because competing trait developers would offer DPL a higher percentage of the technology fee for traits than would Monsanto. In DPL's suit against Monsanto for breach of the merger agreement, DPL

alleged significant financial losses resulting from the delay that the failed merger caused to DPL's efforts to develop traits with companies other than Monsanto.

- 26. Pursuant to the trade-out strategy, DPL has worked with several other biotechnology companies, including Dow AgroSciences, DuPont, Syngenta Crop Protection AG and Bayer CropScience, to develop and commercialize cottonseed containing the traits developed by these companies that would compete with cottonseed containing Monsanto's traits. DPL is an attractive partner that is well suited to quickly introduce new trait technologies due to the strength and breadth of its germplasm base and breeding programs as well as its technical service capabilities, know-how, brand recognition and market position.
- 27. DPL's trait license with Monsanto also makes DPL an attractive partner for competing trait developers. Most farmers in the United States buy cottonseed containing traits that provide both herbicide tolerance and insect resistance. In the MidSouth and Southeast United States, the vast majority of farmers use both traits. DPL's trait licenses with Monsanto allow DPL to offer competing trait developers the ability to combine or "stack" their traits in DPL cottonseed along with Monsanto traits. This stacking right would allow, for example, the developer of an insect-resistant trait to bring that trait to market in cottonseed that also contains a Monsanto herbicide-tolerant trait (*i.e.*, Roundup Ready or the more-recent version, Roundup Ready Flex). Monsanto's trait licenses with most other cottonseed companies, by contrast, severely restrict the ability of these companies to work with other trait developers, with some of these licenses prohibiting the stacking of cottonseed containing Monsanto traits with another company's traits and others subjecting the licensees to severe penalties if they stack non-Monsanto traits with Monsanto traits.

- 28. Even with the advantages that partnering with DPL offers Monsanto's competing trait developers, the process to develop, breed and commercialize cotton varieties with traits typically takes eight to twelve years and costs over \$40 million. The process often requires thousands of attempts before developing a traited cottonseed that then can be used to breed commercial varieties. In addition, extensive regulatory approvals, both in the United States and abroad, are required.
- 29. DPL's trait-development work with Monsanto's competitors has recently begun to show results. DPL's developmental work with Syngenta resulted in a 2004 agreement to commercialize cottonseed with Syngenta's VipCot insect-resistant traits. DPL expects to begin marketing such cottonseed as early as 2009. The DPL/Syngenta agreement provides that DPL will receive 70% of the net trait technology fees earned through sales of this product, compared with the 30% that DPL earns pursuant to its Monsanto agreement.

Monsanto's Competitive Reaction to DPL's "Trade-out" Plan

- 30. Monsanto recognized that its and DPL's "paths will continue to diverge" as DPL continues its strategy to replace Monsanto traits in DPL cottonseed with traits developed by Monsanto's competitors. Driven by the competitive threat posed by DPL's work with these other companies, Monsanto set about building its own cottonseed business.
- 31. In 2002, Monsanto began Cotton States, through which Monsanto obtains licenses on germplasm developed by private breeders and universities, breeds its traits into the germplasm, and out-licenses the resulting traited varieties to sellers of cottonseed for sale under their private labels.
 - 32. In 2005, Monsanto repurchased Stoneville, the second-largest traited cottonseed

company in the MidSouth and Southeast United States. Monsanto had previously owned

Stoneville but sold it in 1999 before abandoning its attempt to acquire DPL. Upon reacquiring

Stoneville, Monsanto immediately invested capital to improve Stoneville's competitive position.

33. Monsanto aggressively worked to strengthen its cottonseed business by, among other things, focusing on advanced breeding techniques and germplasm development and investing in breeding facilities. Monsanto predicted internally that these investments would enable Monsanto to increase its share of the cottonseed business at the expense of DPL and other companies.

B. Relevant Markets

- 34. Across regions such as the MidSouth and Southeast, growing conditions for cotton differ due to weather conditions, soil type, and varied demands for weed and insect control. Farmers demand cottonseed varieties that produce high yield for their particular growing conditions. Monsanto and DPL recognize this demand and market cottonseed varieties by region.
- 35. In many regions of the country, including the MidSouth and Southeast, farmers demand that cottonseed have traits to provide insect resistance and herbicide tolerance.

 Monsanto prices traits by region.
- 36. Cotton farmers consider cotton the most valuable crop for their land, and the cost of the traited cottonseed amounts to only a fraction of the total cost of growing cotton. If there were a small but significant increase in price of traited cottonseed within regions such as the MidSouth and Southeast, it is not likely that farmers would switch to other crops or switch purchases to conventional (non-traited) cottonseed or cottonseed varieties not well suited for

their regions in sufficient volumes to make the price increase unprofitable. The development, commercialization, and sale of traited cottonseed constitutes a line of commerce or product market, and the MidSouth and Southeast United States are sections of the country or geographic markets, within the meaning of Section 7 of the Clayton Act.

IV. ANTICOMPETITIVE EFFECTS

A. Concentration

- 37. DPL is the largest firm in the traited cottonseed market in the United States. It is even more dominant in the MidSouth United States market, with 79% of the traited cottonseed sales, and the Southeast United States market, with over 87% of the traited cottonseed sales.
- 38. Monsanto is the second-largest traited cottonseed company in the MidSouth and Southeast United States markets, with 17% of sales in the MidSouth United States market and 8% of sales in the Southeast United States market.
- 39. After the merger, Monsanto would account for more than 95% of sales of traited cottonseed in the MidSouth United States market and 95% of sales in the Southeast United States market.
- 40. Using a measure of market concentration called the Herfindahl-Hirschman Index ("HHI"), explained in Appendix A, Monsanto's merger with DPL would result in a post-merger HHI of 9110 in the MidSouth United States market, with an increase of 3310, and a post-merger HHI of 9184 in the Southeast United States, with an increase of 1489.

B. Effect of Transaction

41. The merger will eliminate competition between DPL and Monsanto for the development, breeding, and sale of traited cottonseed. As a result, farmers likely will have fewer

choices of, and face higher prices for, traited cottonseed.

42. The merger will also eliminate DPL as a partner independent of Monsanto for developers of traits that would compete against Monsanto. DPL's current efforts to develop and commercialize cottonseed with Syngenta's VipCot insect-resistant technology, which would be competitive with Monsanto's Bollgard and more-recent Bollgard II traits, will be substantially delayed or prevented. Further, the merger will likely delay if not deter efforts to develop other traits that would compete with Monsanto traits and that would provide benefits to United States cotton farmers, including other insect-resistant traits, herbicide-tolerant traits, and potentially other cottonseed traits. As a result, farmers likely will have fewer choices of, and face higher prices for, traited cottonseed.

V. ENTRY

- 43. Entry into the traited cottonseed business requires the assets and expertise both to breed high-performing varieties of cottonseed and to develop or access herbicide-tolerant and insect-resistant traits to breed into the cottonseed. Each of those steps requires many years and the investment of tens of millions of dollars.
- 44. Entry into the traited cottonseed business would not be timely, likely, or sufficient in its magnitude, character, and scope to deter or counteract an anticompetitive increase in the price of traited cottonseed by the merged Monsanto or DPL.

VI. VIOLATION ALLEGED

45. The effect of Monsanto's merger with DPL may be substantially to lessen competition in the market for the development, production, and sale of traited cottonseed in violation of Section 7 of the Clayton Act. Unless restrained, the transaction would likely have

the following effects, among others:

- a. competition in the market for the development, production, and sale of traited
 cottonseed in the MidSouth and Southeast United States would be substantially
 lessened; and
- cotton farmers will suffer harm as a result of fewer choices and higher prices for traited cottonseed.

VII. REQUEST FOR RELIEF

Plaintiff requests that this Court adjudicate and decree as follows:

- 1. that Monsanto's proposed merger with DPL would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18;
- 2. that Monsanto and DPL be permanently enjoined from carrying out their proposed merger, or from entering into or carrying out any agreement, understanding, or plan, the effect of which would be to combine the businesses or assets of Monsanto and DPL;
 - 3. that Plaintiff be awarded the costs of this action; and

4. such other relief as the Court may deem just and proper.

Dated: 5/31/67

Respectfully submitted,

FOR PLAINTIFF UNITED STATES:

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APPENDIX A DEFINITION OF HHI

"HHI" means the Herfindahl-Hirschman Index, a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of 30, 30, 20, and 20 percent, the HHI is 2,600 (30² + 30² +20² + 20² = 2,600). (Note: Throughout the Complaint, market share percentages have been rounded to the nearest whole number, but HHIs have been estimated using unrounded percentages in order to accurately reflect the concentration of the various markets.) The HHI takes into account the relative size distribution of the firms in a market and approaches zero when a market consists of a large number of small firms. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.

Markets in which the HHI is between 1,000 and 1,800 points are considered to be moderately concentrated, and those in which the HHI is in excess of 1,800 points are considered to be highly concentrated. *See Horizontal Merger Guidelines* ¶ 1.51 (revised Apr. 8, 1997). Transactions that increase the HHI by more than 100 points in concentrated markets presumptively raise antitrust concerns under the guidelines issued by the U.S. Department of Justice and Federal Trade Commission. *See id.*